



NATIONAL INSTITUTE FOR CONGESTION REDUCTION

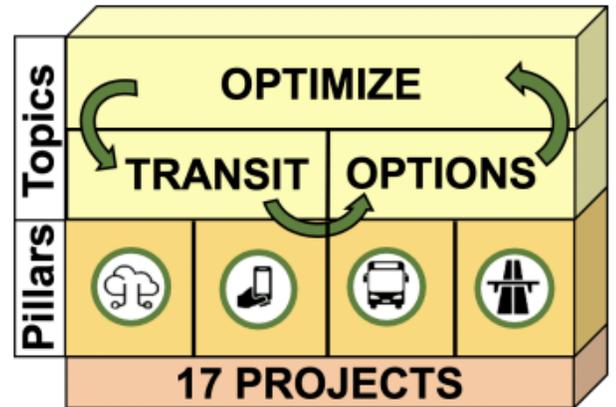
WHAT IS THE NATIONAL INSTITUTE FOR CONGESTION REDUCTION?

HISTORY

Surface transportation congestion is a national crisis. It strangles the movements of people, vehicles and freight on streets, highways, bridges, and in tunnels. Congestion impedes buses and streetcars, delivery vehicles, alternative transportation modes such as transportation network companies (TNCs), and non-motorized modes. Beyond roadways, crowded subways and metro systems can also make commuting unreliable.

Rather than one-size-fits-all solutions, we need solutions: a) tailored to the urban/suburban/exurban/rural land uses where congestion occurs; b) aligned with the needs and aspirations of the residents who live and work in these environments; and c) carefully targeted to underlying causes. Accomplishing these goals will require varied (including social and cultural) perspectives of experts from these communities who are working at the forefront of transportation research. We need experts from a variety of disciplines who recognize how any single instance of congestion can impact multiple modes, and recognize that technology, when suitably deployed, can help solve this crisis in ways not previously possible. **We created the National Institute for Congestion Research (NICR) with these concerns in mind.**

NICR submitted their proposal in early December 2018 by the Center of Urban Transportation Research (CUTR) at University of South Florida. Along with partners at University of California Berkeley, Texas A&M University and the University of Puerto Rico at Mayagüez,



CUTR competed against 51 applications (21 for congestion, 30 for infrastructure). CUTR was notified of their selection on June 5, 2019; NICR was awarded \$7.5 million over 3 years with 100% non-federal match required (totaling \$15 million program).

COLLABORATIONS

With the University of California Berkeley, Texas A&M University and the University of Puerto Rico at Mayagüez, NICR consists of **54 distinguished faculty: 46,000 citations, 1,400 conference presentations, 600 journal presentations (since 2014), and 450 reports.**

MISSION STATEMENT

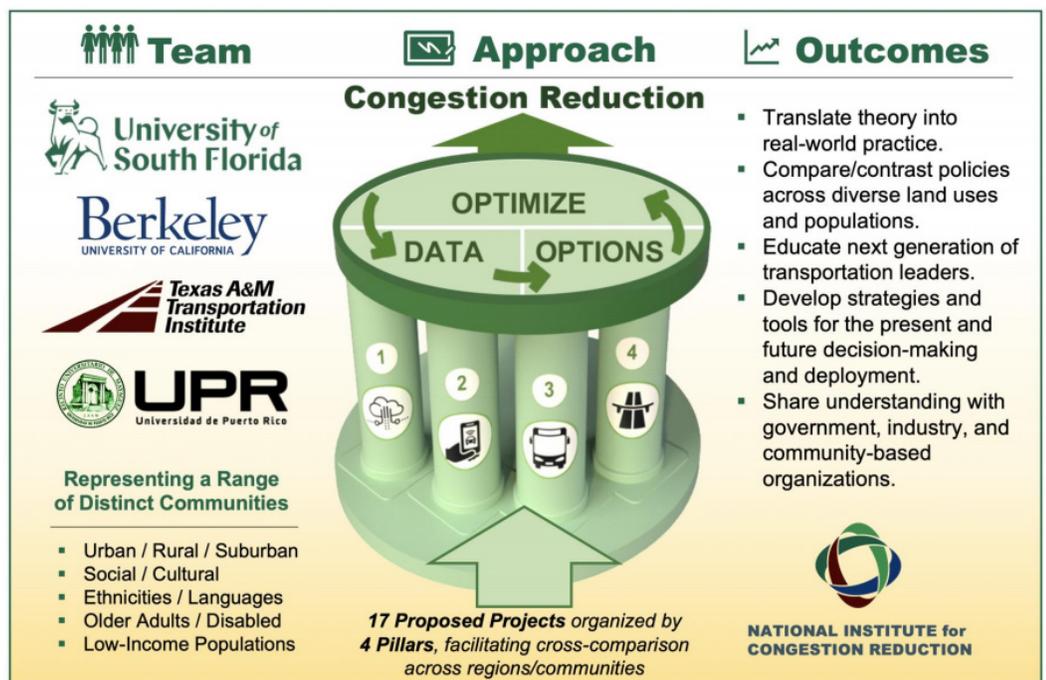
The National Institute for Congestion Reduction (NICR) will emerge as a national leader in providing multimodal congestion reduction strategies through real-world deployments that leverage advances in technology, big data science and innovative transportation options to optimize the efficiency and reliability of the transportation system for all users. Our efficient and effective delivery of an integrated research, education, workforce Mission Statement development and technology transfer program will be a model for the nation.

RESEARCH TOPICS

NICR's greatest strength is not in its geographical reach, but rather its collective expertise and vision. Theories already developed within the consortium for idealized situations will serve as an excellent starting point. These theories will be generalized and readied for real-world deployments via 17 carefully crafted research projects. Outcomes of these projects will enhance our understanding of how transportation systems operate, how travelers make decisions, and the social and political realities that impact our transportation systems.

NICR's aim—to optimize the efficiency and reliability of travel for all transportation system users—will serve as the overarching Topic for all activities. It will be supported by two additional Topics: data modeling and analytical tools to evaluate the effects of shifting transit incentive structure; and ridesharing and alternative forms of transportation.

Our research will include 17 projects grouped under four Pillars and aligned with the three specified Topics. This alignment provides NICR with a cohesive and strategically-focused research plan starting from day one. This plan will propel NICR into a position of national leadership, along with our State DOTs and other partners, in addressing the crisis of passenger and freight congestion for all Americans—ensuring equitable access to underserved populations in a range of land use contexts.



ABOUT CUTR

USF houses CUTR, which conducts approximately \$20 million in research each year, employing 40 full-time research faculty plus 60 support staff and 50 students. Its focus areas include: intelligent transportation systems, traffic operations and safety, transportation demand management, multimodal planning, and mobility policy. Its research on alternative transportation modes focuses on freight, access management, bicycles, pedestrians, ridesharing and telecommuting. And CUTR is, of course, renowned for its public transit research. More than 170 research projects have been sponsored by the National Center for Transit Research (NCTR), a UTC led by CUTR for the past 27 years. CUTR also houses: the FTA-sponsored National Bus Rapid Transit Institute; a state-of-the-art geospatial informatics studio; a naturalistic driving laboratory; and a facility for instrumenting and maintaining test vehicles. CUTR also has access to the nearby SunTrax, the FDOT/Turnpike Authority's 2.25-mile test track.



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NICR or CUTR,
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